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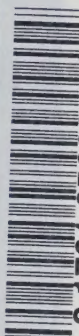
Canadian Wildlife Service.

PRINCE LEOPOLD ISLAND BIRD SANCTUARY MANAGEMENT PLAN.

1994.

PRINCE LEOPOLD ISLAND BIRD SANCTUARY

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MANAGEMENT PLAN



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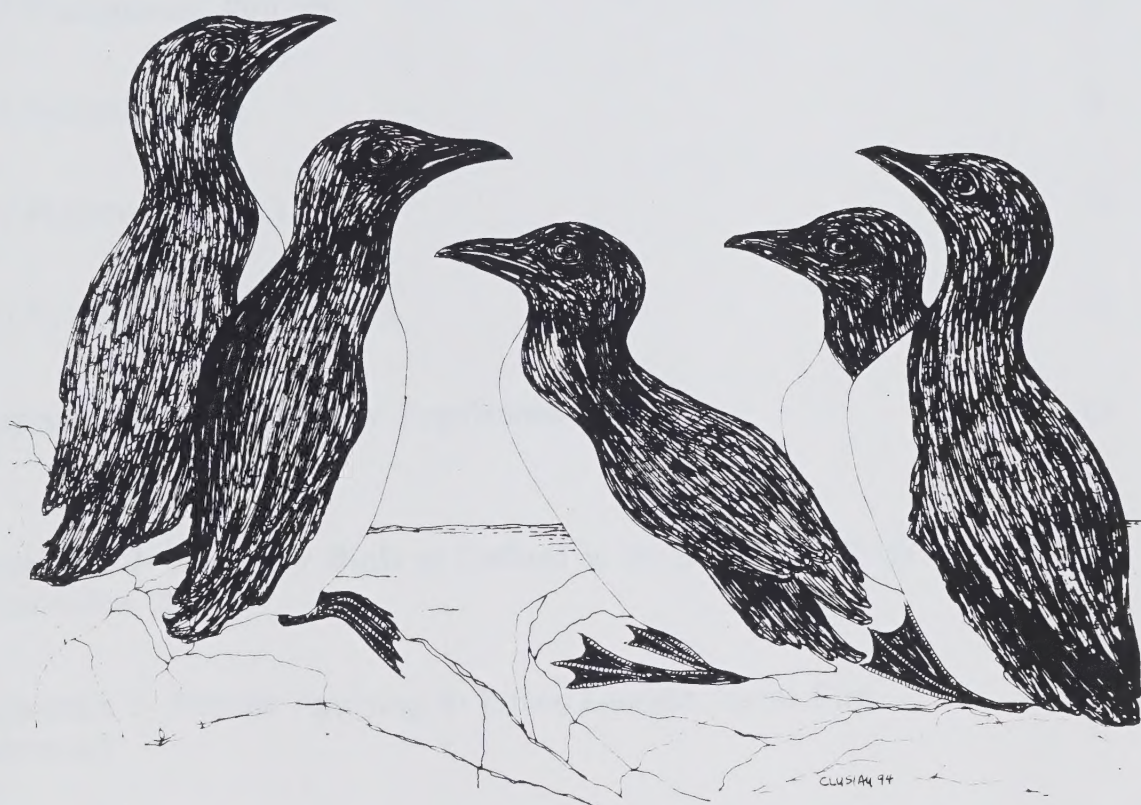
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PRINCE LEOPOLD ISLAND BIRD SANCTUARY
MANAGEMENT PLAN



Northern Conservation Division
Prairie and Northern Region
Canadian Wildlife Service
March 1994

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1.0 INTRODUCTION

1.1 Migratory Bird Sanctuaries

The *Migratory Birds Convention Act* is administered by the Canadian Wildlife Service (CWS) of the federal Department of Environment (DOE). Under this Act, CWS is responsible for the Migratory Bird Regulations, which govern the harvest and possession of migratory birds, and the Migratory Bird Sanctuary Regulations, which provide for the establishment and management of the Sanctuaries.

Migratory Bird Sanctuaries are established to provide long-term protection to migratory bird populations and their habitats. General regulations pertaining to their management are listed in Appendix 1. At present, there are 17 Migratory Bird Sanctuaries in the NWT. Prince Leopold Island was designated a Bird Sanctuary in 1992 to protect its large nesting populations of seabirds.

1.2 Purpose of the Management Plan

Management plans are being prepared for all Bird Sanctuaries in the Northwest Territories. A management plan is a public document outlining the goal, objectives and management policies for a Bird Sanctuary. Management policies are the means of achieving stated management goals. In a management plan, the Bird Sanctuary and its resources are described in sufficient detail to provide a context for the management policies. A bibliography (Appendix 5) provides sources of further information.

Management plans for CWS Bird Sanctuaries are developed with public input. This document is intended to promote dialogue between CWS and the public. Comments or questions about this or other Bird Sanctuaries in the NWT should be directed to:

Chief
Northern Conservation Division
Canadian Wildlife Service
P.O. Box 637
YELLOWKNIFE, NT
X1A 2N5

1.3 The Nunavut Final Agreement

The *Nunavut Final Agreement* (NFA) received Royal Assent in June 1993. Through the NFA, claim beneficiaries receive financial compensation, a quantum of land, certain socio-economic benefits and a significant role in the cooperative management of natural resources within Nunavut. The cooperative management of wildlife and wildlife habitat (including migratory birds and their habitat) is effected through the Nunavut Wildlife Management Board (NWMB) which is the main instrument of wildlife management within Nunavut. Clauses from the NFA that relate to the management of protected areas are provided in Appendix 7. Prince Leopold Island Bird Sanctuary will be managed in a manner that is consistent with the NFA.

2.0 MANAGEMENT GOAL

Prince Leopold Island Bird Sanctuary will be managed to ensure the long-term protection of its migratory bird populations and their habitats.

Management will focus on preventing disturbance to the birds and maintaining present habitat quality.

3.0 MANAGEMENT OBJECTIVES

The management objectives for the Prince Leopold Island Bird Sanctuary are:

- 1) To manage the Sanctuary's migratory bird populations and their habitats in a manner consistent with the *Migratory Birds Convention Act* and with the *Nunavut Final Agreement*;
- 2) To maintain the Sanctuary's breeding seabird populations at their present level;
- 3) To encourage public awareness of and appreciation for the Sanctuary and its natural resources.

4.0 MANAGEMENT POLICIES

4.1 Management Authority

The Management Authority for the Sanctuary is the Minister of the Environment, represented by the Regional Director, Environmental Conservation, Prairie and Northern Region. The Management Authority will direct the management of the Sanctuary in cooperation with the Department of Indian Affairs and Northern Development (DIAND).

4.2 Land use

The primary purpose of the Sanctuary is the protection of birds and their habitats. Other land uses may be acceptable if they are compatible with the conservation of

birds. The acceptability of secondary land uses depends on the type of activity and its potential for causing disturbance to nesting birds or damage to important habitats. Persons should contact the Canadian Wildlife Service, Yellowknife if they have questions concerning prospective activities.

4.3 Access

Beneficiaries of the *Nunavut Final Agreement* have free and unrestricted access to Prince Leopold Island Bird Sanctuary. The nesting cliffs should be avoided during the bird's breeding season (May to September). Other persons require a permit to undertake any activity in the Sanctuary. Permitting procedures are outlined in Section 4.11.

Ships are not permitted to enter the Sanctuary except in emergencies. Sanctuary boundaries (Figure 2) and sailing directions will be published in the Notice to Mariners (Canadian Coast Guard).

Aircraft that fly close to the breeding cliffs can cause significant disturbance. Aircraft should maintain a vertical distance of 1 km and horizontal distances of 1 km inland and 5 km seaward of the seabird colony. This information will be published in the next edition of the Canadian Aeronautical Charts (Transport Canada).

4.4 Water Pollution

The *Arctic Waters Pollution Prevention Act* applies within Prince Leopold Island Bird Sanctuary. Ship and boat traffic passing Prince Leopold Island must not dump garbage overboard, nor release oil

or chemicals in the vicinity of the Sanctuary.

4.5 Wildlife management

CWS will manage migratory birds (as defined in Appendix 2) in the Sanctuary in accordance with the *Nunavut Final Agreement* (see Section 1.3). Other wildlife is managed by the GNWT Department of Renewable Resources (GNWT-DRR), pursuant to the NWT *Wildlife Act* and the federal Department of Fisheries and Oceans (DFO), pursuant to the *Fisheries Act*.

Responsibility for endangered wildlife in the NWT is shared by CWS (*Canada Wildlife Act*), DFO (*Fisheries Act*), and GNWT-DRR (*NWT Wildlife Act*). Protection of vulnerable, threatened and endangered species (as defined by the Committee on the Status of Endangered Wildlife in Canada) is a priority. At present, none of the bird species breeding on Prince Leopold Island are considered endangered. Management measures for the Peary Caribou are not appropriate as it is an infrequent visitor to the Sanctuary. Protection of Polar Bear populations in the vicinity of the Sanctuary is effected through existing harvest quotas and other management measures.

4.6 Subsistence Hunting and Trapping

Under the *Nunavut Final Agreement*, Inuit have right of access for the purpose of harvesting, including migratory birds, to Prince Leopold Island Bird Sanctuary. The present level of harvest of wildlife in the Sanctuary will be determined by the Nunavut Harvest Study (section 5.4 of the

Nunavut Final Agreement). Restrictions on harvesting activities within the Sanctuary may be imposed by the Nunavut Wildlife Management Board of there are conservation concerns.

4.7 Sport Hunting

CWS recognises that the guiding of sport hunters for the purpose of taking marine or terrestrial mammals may be a significant source of income for people in Resolute and Arctic Bay. Sport hunting (e.g. for Polar Bears) is acceptable within Prince Leopold Island Bird Sanctuary provided that there are no negative impacts on the birds or their habitats. Sport hunting activities from May to September must occur away from areas marked on Figure 3, to avoid disturbance to nesting birds and disruption of ongoing research. Migratory birds may not be hunted for sport in a Migratory Bird Sanctuary. All sport hunts must follow quotas and regulations set by the NWMB. Sport hunters must obtain a permit from CWS to carry a firearm in the Sanctuary.

4.8 Tourism and Recreation

CWS recognizes that recreational activities associated with wildlife viewing and appreciation are legitimate land uses. Their acceptability, however, is a function of the timing, location, nature and intensity of such pursuits. Certain areas of the Sanctuary are off-limits to recreational activities during the nesting season (May to September) to avoid disruption of ongoing research (Figure 3). The extent of recreational activities is monitored by CWS and restrictions will be imposed if necessary.

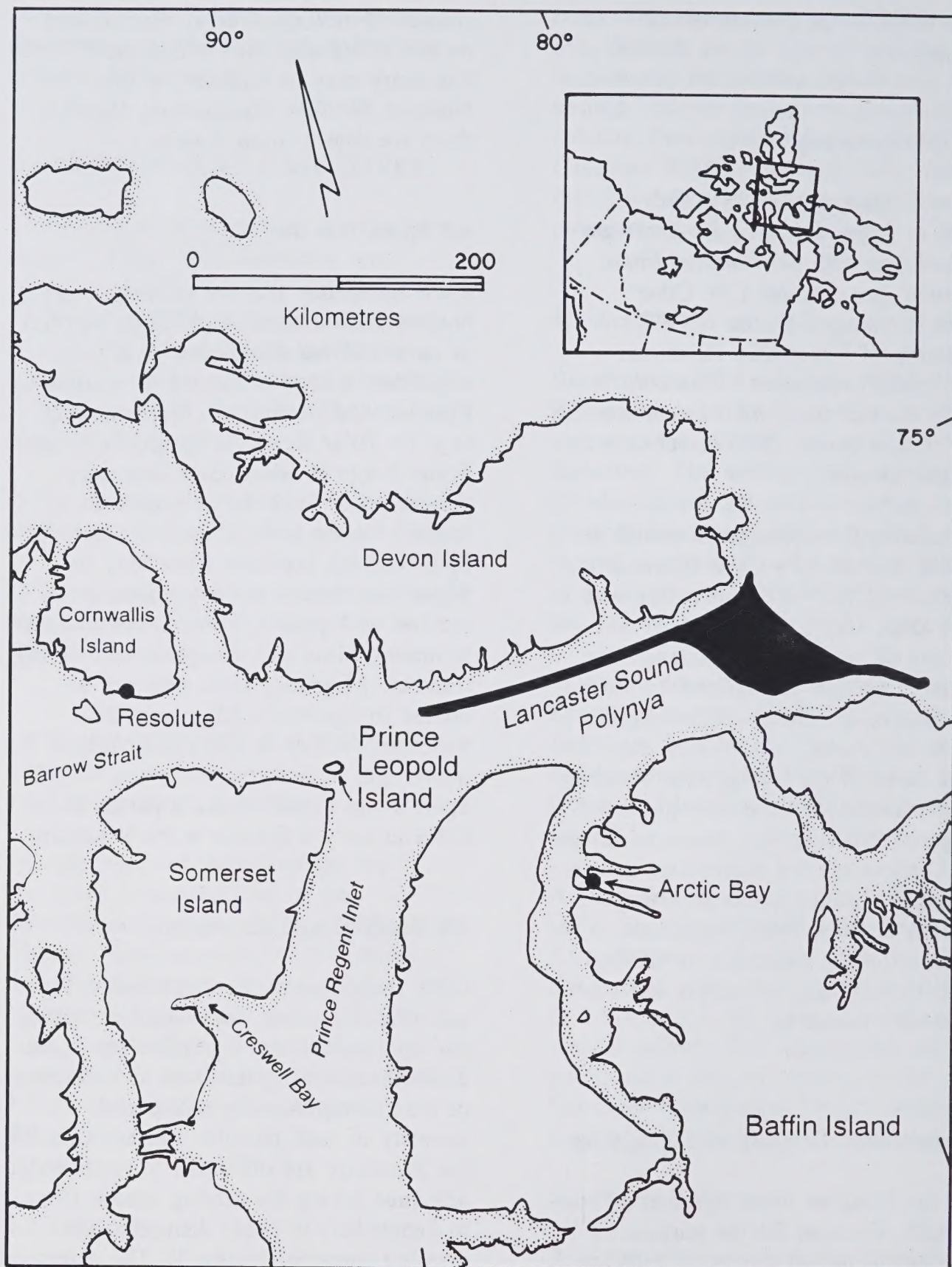


FIGURE 1. Location of Prince Leopold Island.

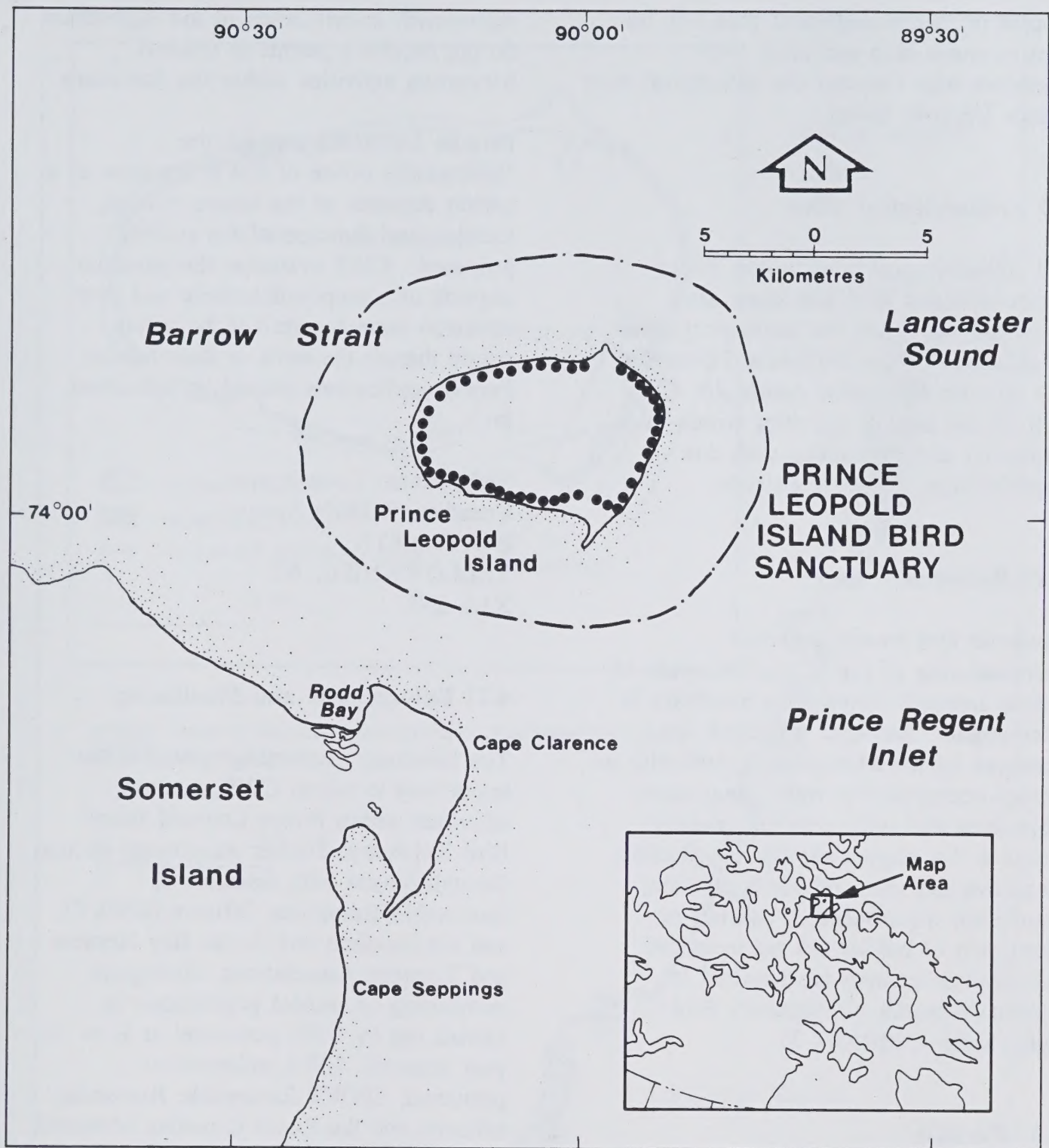


FIGURE 2. Boundaries of Prince Leopold Island Bird Sanctuary.

Copies of this management plan will be sent to cruise ship and other tour operators who frequent the vicinity of Prince Leopold Island.

4.9 Archaeological Sites

All archaeological sites within Prince Leopold Island Bird Sanctuary are protected under the Archaeological Sites Regulations of the *Northwest Territories Act* and the *Territorial Lands Act*. CWS will ensure that all activities within the Sanctuary are undertaken with due consideration for this legislation.

4.10 Research

Research that creates a greater understanding of the natural resources of Prince Leopold Island Bird Sanctuary is encouraged. Research proposals are screened by the Management Authority to ensure compatibility with management objectives and other ongoing research. Projects that require extensive collecting, excessive depletion of any population, significant disturbance of animals or disruption of habitat are not permitted. Appropriate permits are required to conduct research in Migratory Bird Sanctuaries (Appendix 3).

4.11 Permits

In accordance with the Migratory Bird Sanctuary Regulations, a CWS permit is required by all persons or parties who wish to conduct activities in the Sanctuary. Additional permits (Appendix 3) may be required, depending on the nature of the proposed activities. In accordance with the *Nunavut Final*

Agreement, beneficiaries of the Agreement do not require a permit to conduct harvesting activities within the Sanctuary.

Permits are issued through the Yellowknife office of CWS. Issuance of a permit depends on the nature, timing, location and duration of the activity proposed. CWS evaluates the potential impacts of a proposed activity and may refuse to issue a permit if the activity would disturb the birds or their habitat. Permit applications should be submitted to:

Enforcement Coordinator
Canadian Wildlife Service
P.O. Box 637
YELLOWKNIFE, NT
X1A 2N5

4.12 Enforcement and Monitoring

The Sanctuary permitting system is the major way in which CWS monitors activities within Prince Leopold Island Bird Sanctuary. Further monitoring occurs through liaison with researchers, Renewable Resources Officers (GNWT), and the Resolute and Arctic Bay Hunters and Trappers Associations. Biological monitoring of seabird populations is carried out by CWS personnel at 5- to 10-year intervals. CWS enforcement personnel, GNWT Renewable Resources officers, and the Royal Canadian Mounted Police are all empowered to enforce Migratory Bird Sanctuary Regulations.

4.13 Public Awareness

CWS will promote public awareness of and appreciation for Prince Leopold Island Bird Sanctuary by publishing a

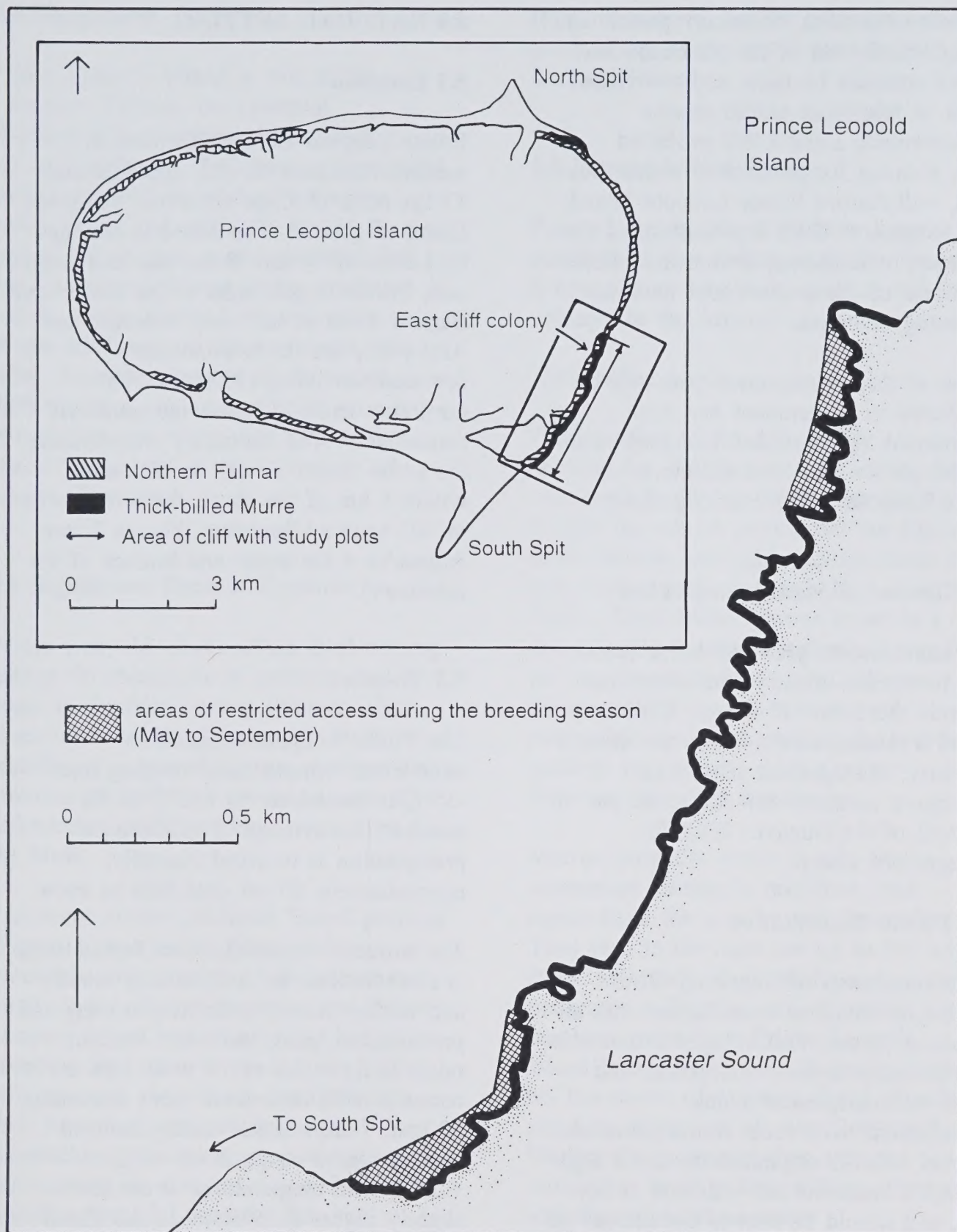


FIGURE 3. Location of no-access (research) areas on Prince Leopold Island.

Sanctuary brochure, Sanctuary poster, and through discussion of the Sanctuary and its bird colonies on radio and in written media. A television public service announcement about CWS protected areas, planned for production within five years, will feature Prince Leopold Island Bird Sanctuary. CWS's promotion of the Sanctuary will attempt to increase public awareness of the area without necessarily increasing visitation.

Copies of this management plan will be distributed to government and non-government agencies, and members of the general public who have an interest in Prince Leopold Island Bird Sanctuary.

4.14 Review of Management Plan

This management plan will be reviewed after five years initially and at ten year intervals thereafter. However, CWS may amend a management plan at any time, if necessary; management plans and subsequent revisions are subject to the approval of the Nunavut Wildlife Management Board.

4.15 Public Consultation

The management of Migratory Bird Sanctuaries involves consultation with all interested parties. Public input is desirable and necessary to the development and review of management plans. Consultations with local communities and regional wildlife organizations are a high priority. Comments are welcome at any time, and should be sent to the address on page 1 of this Plan.

5.0 NATURAL SETTING

5.1 Location

Prince Leopold Island is situated in western Lancaster Sound, approximately 13 km north of Cape Clarence, Somerset Island (Figure 1). The island is bounded by Lancaster Sound to the east and north-east, Prince Regent Inlet to the south, and Barrow Strait to the west. Resolute and Arctic Bay are the two closest communities lying 150 km to the northwest and 175 km to the southeast respectively. The Sanctuary encompasses the entire island as well as all water within 5 km of the shore, for a total area of 303 square kilometres (Figure 2; see Appendix 4 for metes and bounds of the sanctuary).

5.2 Weather

The Prince Leopold Island area experiences temperatures ranging from -35°C in the winter to +10°C in the summer. An average of 120 mm of precipitation is received annually; approximately 60 per cent falls as snow.

The summer season (June to September) is characterized by cool, mainly cloudy and windy weather with frequent fog and precipitation (rain, snow and freezing rain). Daily winds of 15 to 20 kph are common with occasional gusts exceeding 50 kph. Temperatures during the bird nesting season range from -10°C to +10°C, with temperatures at sea level slightly higher than those on the island top. Break-up of ice occurs in May and freeze-up commences in late September.

5.3 Geography

Prince Leopold Island is part of the Lancaster Plateau, the principal physiographic element of the Eastern Arctic Lowlands. The island is flat-topped and surrounded by vertical limestone cliffs 245 to 265 metres in height. A gravel spit extends approximately 1 km out from the cliff base at the southeast corner of the island. Extensive talus slopes are found on the south and west sides. Access to the top of the island is difficult from sea level and can only be gained through stream-cut gullies. Total area of the island is approximately 64 square kilometres.

5.4 Significant Natural Features

Prince Leopold Island offers ideal nesting habitat for thousands of seabirds that come to the island every summer. High, sheer cliffs are the Sanctuary's most significant natural feature. Ledges and crevices formed from eroding layers of sedimentary rock provide nesting sites for the birds.

Proximity of the Lancaster Sound polynya (Figure 1) is a major factor in the successful colonisation of the island by birds. Areas of open water around Prince Leopold Island remain more or less constant from year to year. In the spring, polynyas and shore leads (particularly their ice edges) induce phyto- and zooplankton blooms much earlier than in surrounding ice-covered areas. This provides plentiful food for fish and crustaceans, which in turn are eaten by the birds. A variety of marine mammals are also attracted to these areas of open water. Strong currents in Barrow Strait and Lancaster Sound bring in nutrients

from other areas, further enhancing the productivity of the water near Prince Leopold Island.

5.5 Featured Bird Species

Prince Leopold Island supports large numbers of four nesting seabird species. It is one of very few multi-species seabird colonies in the Arctic.

Thick-billed Murre

This member of the Auk family has a circumpolar distribution. In Canada, the vast majority (3.2 to 3.8 million birds) inhabit the eastern Arctic and the Atlantic coast. Murres are highly aquatic birds that come ashore only to breed. In the eastern Arctic, Thick-billed Murres breed in a few, densely-populated colonies (over 90 per cent breed in 6 colonies). These concentrations render murres more susceptible to disturbance on the breeding grounds than species with a more dispersed breeding distribution.

Murres generally arrive in mid-May, commence nesting in mid-June, and depart from the area by mid-September. They feed in the open sea up to 100 km from the colony. Both adults and young undertake a flightless fall migration. Large numbers swim from Prince Leopold Island through Lancaster Sound to winter off the shores of Newfoundland. Smaller numbers winter off of west Greenland. During this migration they are very vulnerable to oil pollution from shipping activities along their route.

Approximately 86,000 pairs or 7 per cent of Canada's Thick-billed Murre population nest in Prince Leopold Island Bird Sanctuary.

Northern Fulmar

The Northern Fulmar is a circumpolar species that breeds mainly in the Arctic. Fulmars spend most of their time over the open ocean; they come ashore only to nest. Prince Leopold Island provides the high, sheer cliffs that are their favoured breeding habitat. They arrive in mid-May, begin nesting in early June, and leave the area by late September. Fulmars patrol up to 200 km from the colony along floe edges for the fish (especially Arctic Cod) and macroinvertebrates that comprise their diet. Creswell Bay (Figure 1) is an important feeding area for Prince Leopold Island's fulmars. They winter far out to sea in the Atlantic ocean.

Prince Leopold Island hosts 95 per cent of the Northern Fulmars that breed in Lancaster Sound (62,000 pairs) and 17 per cent of the Canadian Fulmar population. The importance of the island to the species in this country cannot be overstated.

Black-legged Kittiwake

This circumpolar kittiwake breeds in eastern Canada, from Cornwallis Island south to Nova Scotia. Wintering kittiwakes are predominantly marine and are rarely found inland.

Sixteen percent (approximately 29,000 pairs) of Canada's kittiwake population inhabits Prince Leopold Island from mid-May to late September. They nest scattered throughout the Thick-billed Murre colonies, particularly on the north end of the island. Birds from the nesting colony forage along the coast of Somerset Island, up to 50 km from Prince Leopold Island.

Black Guillemot

A northern and a southern subspecies of Black Guillemot occur in Canada; they can be roughly divided geographically as arctic and non-arctic breeders. Guillemots are not strictly colonial birds; they will nest in small groups or single pairs if good nesting sites are scarce. They have a preference for cliffs but will also nest on or under rock rubble and on talus slopes.

On Prince Leopold Island, approximately 4,000 Black Guillemot pairs (5 per cent of the Canadian population) nest along the western cliffs. This is one of the largest known breeding aggregations of this species. They are nearshore foragers and will collect food along the coast up to 50 km from the island. Guillemots are present on and around Prince Leopold Island from mid-May to mid-September but disperse from Lancaster Sound very quickly after breeding. Guillemots are one of the few birds that may remain in Low Arctic waters during the winter.

5.6 Other birds

Prince Leopold Island has six other breeding birds in addition to those listed above. Five of these (Brant, Common Eider, Parasitic Jaeger, Common Raven and Snow Bunting) breed in small numbers. Approximately 200 pairs of Glaucous Gulls nest throughout the seabird colonies. Their predation on eggs, chicks, and sometimes adults has a notable effect on seabird (especially murre) breeding success. CWS studies on the island in 1975 attributed 15% to 25% of all murre egg loss to predation by Glaucous Gulls.

Other non-breeding bird species have also

been recorded from Prince Leopold Island (Appendix 6).

5.7 Mammals

There are no resident populations of terrestrial mammals on Prince Leopold Island. Peary Caribou and Arctic Fox are seen from time to time. The island is largely unvegetated and therefore unable to support permanent populations of herbivores.

Marine mammals are plentiful in the waters around the island. Narwhal, Beluga, Polar Bear, Walrus, Ringed Seal and Bearded Seal are common.

5.8 Other Animals

The most common fish around the Sanctuary include Arctic Cod, eelpout (*Lycodes* sp.), snailfish (*Liparis* sp.), and sculpins. Over 100 species of amphipods inhabit the cold marine waters. Clams and sea urchins are plentiful and are an important food source for Arctic Terns. In food samples collected from Thick-billed Murre chicks and adults, Arctic Cod was common, as were the crustacean genera *Themisto*, *Gammarus*, and *Onisimus*.

Virtually nothing is known about terrestrial invertebrates.

5.9 Vegetation

Except for the breeding cliffs, Prince Leopold Island is mostly unvegetated. Lichens and mosses form a dense mat on some cliff-tops and the birds produce enough fertilizer to allow a dense growth of tussock grasses and mountain sorrel on

some of the cliffs. The island's gravel beaches and spits support some flowering plants, especially saxifrages (*Saxifraga* sp.), whitlow grasses (*Draba* sp.), poppy (*Papaver* sp.), mountain avens (*Dryas* sp.), stitchwort (*Stellaria* sp.), and chickweeds (*Cerastium* sp.).

6.0 HISTORY OF LAND USE

6.1 Prehistoric period

Little is known about the use of Prince Leopold Island by prehistoric peoples. However, there is evidence that the island was used, at least sporadically, by pre-contact Inuit and their ancestors (prior to AD 1820). Dwelling outlines, whale bones, and other skeletal remains have been found there.

6.2 Historic period

European exploration and settlement

The first written account of Prince Leopold Island was set down in 1819 by British explorer William Edward Parry. He named the island in honour of Prince Leopold Saxe Coburg, a member of the German royal family. European whalers followed the explorers and by the late 1820's whaling vessels were in the area.

A Hudson's Bay post was opened nearby at Port Leopold (on Somerset Island) for a brief period in the 1930's. It closed due to difficulty in keeping the post supplied.

Present human settlements

Prince Leopold Island is 150 km from the nearest human community (Resolute). Very few people visit the island. Local

hunters are aware of the seabird colonies on the island but seldom take birds or eggs. The island's formidable cliffs discourage human occupation or exploitation.

Hunting and trapping

Lancaster Sound and Barrow Strait are used extensively by the communities of Resolute and Arctic Bay for subsistence hunting and trapping. The area adjacent to Prince Leopold Island is a hunting ground for Polar Bear, Walrus, and seals. Some Polar Bears are harvested within the Bird Sanctuary by sport hunters on guided trips. The island itself is not often frequented for hunting or trapping. Considerable hunting and trapping activity occurs on nearby Somerset Island.

Non-renewable resources

Both hydrocarbon and mineral potential are low in this area and there is no exploration at present.

Transportation routes

Lancaster Sound is subject to light ship traffic, mostly during open water season (August). A resupply vessel for Resolute makes an annual inbound and outbound pass by Prince Leopold Island each August. There are two trips yearly by icebreaker-assisted oil tankers to and from Cameron Island (northwest of Cornwallis Island). Polaris mine on Little Cornwallis Island ships up to 12 vessels of ore through Lancaster Sound between August and October. Supplies and fuel are carried on the inbound portion of these trips. In 1992, two transits of the Northwest Passage were made by tourist ships.

Commercial shipping through Lancaster Sound may increase markedly in the next ten years if mineral deposits in the Great Slave geological province east and south of Great Bear Lake are developed.

Tourism

At present, Prince Leopold Island Bird Sanctuary is lightly used by tourism operators. One outfitter has yearly ecotourism camps on nearby Somerset Island, and a highlight of his visitors' trip is an excursion to the Sanctuary's breeding cliffs. These visits are carefully controlled and viewing points have been selected away from sensitive research sites (Figure 3).

Occasionally, a tourist ship will enter Sanctuary waters and ferry passengers to the breeding cliffs. This activity is difficult to monitor at present due to lack of policies and licensing structures for the ships.

Research

Lancaster Sound and environs were the focus of a spate of biological studies in the 1970's, mostly in reaction to a proposal to construct a gas pipeline through the area. The seabird colonies of Prince Leopold Island were first studied in 1958 by T.W. Barry of the Canadian Wildlife Service. Several surveys of seabirds were undertaken in the early 1970's. From 1975 to 1977, an intensive study of the breeding birds of Prince Leopold Island (especially Thick-billed Murres) was undertaken as part of a CWS program to identify and enumerate seabird colonies in the eastern Canadian Arctic. Most of our information about the island and its bird life come from these studies by D.N. Nettleship and A.J. Gaston. The

colonies are currently monitored every 5 to 10 years as part of the Eastern Arctic Seabird Monitoring Project.

Ecological reserve

Prince Leopold Island and the surrounding waters have been recognized by several organizations as an area of exceptional natural significance. In the late 1960's Prince Leopold Island was proposed as an International Biological Program Site. The Lancaster Sound Regional Land Use Plan recommended the protection of Prince Leopold Island as a bird sanctuary.

On January 23, 1992, Prince Leopold Island was officially designated as a federal Migratory Bird Sanctuary under the *Migratory Birds Convention Act*.



7.0 SCHEDULE FOR COMPLETION OF ACTION ITEMS

Section in Plan	Action	Completion Date
4.3	-publish boundaries and sailing information in <i>Notice to Mariners</i>	1995
	-publish boundaries on Canadian aeronautical charts	1995
4.8	-send management plan to tour operators	1994
4.13	-produce Sanctuary brochure	1994
	-produce Sanctuary poster	1992
	-radio, print media promotion	ongoing
	-distribute management plan to interested parties	1994
	-produce public service announcement on protected areas	2000
4.14	-review management plan	1999

NOTE: THIS APPENDIX IS NOT COMPLETE. REFER TO THE ACT AND AMENDMENTS FOR COMPLETE REGULATIONS.

General Prohibitions

3. (2) No person shall, in a Migratory Bird Sanctuary,
(a) hunt migratory birds,
(b) disturb, destroy or take the nests of migratory birds, or
(c) have in his possession a live migratory bird, or a carcass, skin, nest or egg of a migratory bird,
except under authority of a permit therefor.
4. (1) No person shall have in his possession in a Migratory Bird Sanctuary
(a) any firearm; or
(b) any hunting appliance except as otherwise provided in these regulations.
- (2) Subsection (1) does not apply to any resident or person actually domiciled in a Migratory Bird Sanctuary while that resident or person is in his residence or transporting any firearms or a hunting appliance to or from his residence.
- (3) Subject to the Act and the Migratory Birds Regulations, the Minister [of the Department of the Environment] may issue a permit authorizing any person to have firearms in his possession and to shoot and have in his possession migratory game birds in such portion of a Migratory Bird Sanctuary and during such times as are specified in the permit.
5. (1) No person who owns a dog or cat shall permit the dog or cat to run at large in a Migratory Bird Sanctuary.
- (2) A game officer may destroy any dog or cat found chasing or molesting migratory birds in a Migratory Bird Sanctuary.

Permits

9. (1) The Minister may issue, or authorize any person to issue, any permit referred to in these Regulations.
- (2) Every person who applies for a permit shall, if requested by the Minister, furnish such information in respect of the purpose for which the permit is requested as the Minister may require.
- (3) Every permit shall be subject to such conditions as in the opinion of the Minister are necessary to protect migratory birds or the eggs, nests or habitat of migratory birds within a Migratory Bird Sanctuary.

Appendix 1. Continued.

- (4) The Minister may
 - (a) refuse to issue a permit to any person, or
 - (b) cancel any permit that has been issued to any person, if, in his opinion, that person has failed to comply with the conditions set out in the permit or the activities being carried on by that person are likely to be harmful to migratory birds or the eggs, nests or habitat of migratory birds within a Migratory Bird Sanctuary.
 - (5) Every permit expires on the expiry date set out therein or, where the permit does not contain a expiry date, on December 31 next following the day on which it was issued.
 - 10. (1) No person shall, in a Migratory Bird Sanctuary, carry on any activity that is harmful to migratory birds or the eggs, nests or habitat of migratory birds, except under authority of a permit.
 - (2) A permit referred to in subsection (1), may be issued
 - (a) by the Minister, where the Sanctuary is situated on land owned by Her Majesty in right of Canada; or (b) by the chief game officer of a province, where the Sanctuary is situated on land owned by Her Majesty in right of the province.
 - (3) For the purposes of subsection (2), "chief game officer of a province" means the chief or director of an agency of the province concerned with the administration of a wildlife Act of the province.
 - 11. Notwithstanding anything in these regulations,
 - (d) any person who is the holder of, or eligible for, a general hunting licence for the Northwest Territories may carry a firearm within any Migratory Bird Sanctuary lying north of the 60th parallel of north latitude for the purpose of taking fur-bearing animals, big game or sea mammals in accordance with that licence;
 - (e) any person herding reindeer may use dogs for the purpose of retrieving any reindeer that stray into the Kendall Island Bird Sanctuary or the Anderson River Delta Bird Sanctuary; or
 - (f) any person herding reindeer may allow those reindeer to pass through the Anderson River Delta Bird Sanctuary to and from the Nicholson Peninsula at 65°55' north latitude and 129° west longitude.
-

* "minister" refers to the federal Minister of the Environment.

Appendix 2. Migratory birds, as defined by the *Migratory Birds Convention Act*.

1. Migratory Game Birds:

- (a) Anatidae (waterfowl), including brant, wild ducks, geese, and swans;
- (b) Gruidae (cranes), including little brown, sandhill, and whooping cranes;
- (c) Rallidae (rails), including coots, gallinules, and sora and other rails;
- (d) Shorebirds, including avocets, curlews, dowitchers, godwits, knots, oystercatchers, phalaropes, plovers, sandpipers, snipe, stilts, surf birds, turnstones, willets, woodcock, and yellowlegs;
- (e) Columbidae (pigeons), including doves and wild pigeons.

2. Migratory Insectivorous Birds:

Bobolinks, catbirds, chickadees, cuckoos, flickers, flycatchers, grosbeaks, hummingbirds, kinglets, martins, meadowlarks, nighthawks, nuthatches, orioles, robins, shrikes, swallows, swifts, tanagers, titmice, thrushes, vireos, warblers, waxwings, whip-poor-wills, woodpeckers, wrens, and all other perching birds which feed entirely or chiefly on insects.

3. Other Migratory Nongame Birds:

Auks, auklets, bitterns, fulmars, gannets, grebes, guillemots, gulls, herons, jaegers, loons, murre, petrels, puffins, shearwaters, and terns.

Appendix 3. Permits relating to Prince Leopold Island Bird Sanctuary.

PERMIT	ACTIVITY COVERED BY PERMIT	APPLICABLE LEGISLATION	CONTACT AND WHERE TO APPLY
Sanctuary permit	Applicable to all persons or parties who wish to enter the Sanctuary for any purpose.	Migratory Bird Sanctuary Regulations of the <i>Migratory Birds Convention Act</i>	Enforcement Coordinator Canadian Wildlife Service Box 637 YELLOWKNIFE, NT X1A 2N5 (403) 920-8551
Wildlife research permit	For all activities directly related to wildlife research	Regulations of the <i>NWT Wildlife Act</i>	Director, Wildlife Management Division, Department of Renewable Resources, Government of NWT 600, 5102-50th Ave. YELLOWKNIFE, NT X1A 3S8 (403) 873-7411
Archaeologist's permit	For all archaeological work.	Regulations of the <i>Northwest Territories Act</i>	Senior Archaeologist, Prince of Wales Northern Heritage Centre, Dep't of Education, Culture and Employment Government of NWT Box 1320, YELLOWKNIFE, NT X1A 2I9 (403) 920-8839

Appendix 3. continued.

PERMIT	ACTIVITY COVERED BY PERMIT	APPLICABLE LEGISLATION	CONTACT AND WHERE TO APPLY
Scientific Research Licence	For all scientific research, excluding wildlife and archaeological research.	<i>Scientists Act</i>	Science Administrator Science Institute of the Northwest Territories Box 1617 YELLOWKNIFE, NT X1A 2P2 (403) 873-7592
Land Use Permit (terrestrial)	For activities that involve the use of vehicles, explosives, drilling equipment, hydraulic prospecting, campsites, or the preparation of lines, trails or right-of-way.	Regulations of the <i>Territorial Lands Act</i>	District Manager Indian and Northern Affairs Box 100 IQALUIT, NT X0A 0H0 (819) 979-4405
Fisheries Collection Permit	For all activities relating to the collection of fishes or marine mammals.	<i>Fisheries Act</i>	Area Manager Dept. of Fisheries and Oceans Box 358 IQALUIT, NT X0A 0H0 (819) 979-6274

Appendix 4. Metes and bounds of Prince Leopold Island Bird Sanctuary.

"In the Northwest Territories;

in the District of Franklin;

all that parcel consisting of and being more particularly described as follows;

the whole of Prince Leopold Island being designated in accordance with the Gazetteer of Canada for N.W.T., Ottawa 1980 and shown on combined National Topographic Series map 58E/3, 58E/2, and part of 58D/14 Prince Leopold Island, produced at a scale of 1:50,000 by the Department of Energy, Mines and Resources at Ottawa; all the water within five kilometres of the ordinary high water mark of said island; and the foreshore of said island and any rocks and islets above the ordinary low water mark of said waters."

Prince Leopold Island Bird Sanctuary contains about 303.0 km² (63.6 km² land area, 239.4 km² water area).

Appendix 5. Selected bibliography.

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Appendix 6. Checklist of the birds of Prince Leopold Island.

Yellow-billed Loon	Northern Fulmar*
Brant*	Snow Goose
Oldsquaw	Common Eider*
King Eider	Rough-legged Hawk
Peregrine Falcon	Gyr Falcon
Rock Ptarmigan	Sandhill Crane
Semipalmated Plover	Ringed Plover
Lesser Golden-Plover	Black-bellied Plover
Ruddy Turnstone	Red Knot
Purple Sandpiper	White-rumped Sandpiper
Baird's Sandpiper	Semipalmated Sandpiper
Sanderling	Red Phalarope
Pomarine Jaeger	Parasitic Jaeger*
Long-tailed Jaeger	Glaucous Gull*
Iceland Gull	Thayer's Gull
Ivory Gull	Black-legged Kittiwake*
Ross' Gull	Sabine's Gull
Arctic Tern	Thick-billed Murre*
Dovekie	Black Guillemot*
Atlantic Puffin	Horned Lark
Common Raven*	Bank Swallow
Northern Wheatear	Water Pipit
Yellow-rumped Warbler	Palm Warbler
Hoary Redpoll	Common Redpoll
Savannah Sparrow	Dark-eyed Junco
American Tree Sparrow	Harris' Sparrow
White-crowned Sparrow	Fox Sparrow
Lapland Longspur	Snow Bunting*

* known to breed on Prince Leopold Island.

Appendix 7. Sections of the *Nunavut Final Agreement* that are relevant to the management of Prince Leopold Island Bird Sanctuary.¹

i) Nunavut Wildlife Management Board

5.2.34 ...The NWMB shall in its discretion perform the following functions related to management and protection of wildlife and wildlife habitat:

a) approve the establishment, disestablishment, and changes to boundaries of Conservation Areas, related to management and protection of wildlife and wildlife habitat;

b) identify wildlife management zones and areas of high biological productivity and provide recommendations to the Nunavut Planning Commission with respect to planning in those areas;

c) approve plans for management and protection of particular wildlife habitats including areas within Conservation Areas, Territorial Parks and National Parks;

g) provide advice as to requirements for the promotion of wildlife education, information and training of Inuit for wildlife management;

5.2.36 While habitat management and protection is an integral function of wildlife management, and as such is commensurate with the NWMB's responsibilities for wildlife matters, primary responsibility for the management of lands, including flora, shall be exercised by the appropriate government agencies and such other related bodies as may be established in the Agreement.

ii) Right of Inuit access and harvesting in conservation areas (incl. Migratory Bird Sanctuaries)

5.6.1 Where a total allowable harvest for a stock or populations of wildlife has not been established by the NWMB pursuant to Sections 5.6.16 and 5.6.17, an Inuk shall have the right to harvest that stock or population in the Nunavut Settlement Area, up to the full level of his or her economic, social, and cultural needs, subject to the terms of this Article.

5.6.5 Subject to Section 5.6.6, the NWMB shall presume as a matter of fact and without further evidence that Inuit need the total allowable harvest established by the NWMB of

a) all bears;

b) musk-ox;

c) bowhead whales;

d) all migratory birds and their eggs except migratory game birds, as listed in Part I of Schedule 5-3 [waterfowl, cranes, pigeons and doves, rails, coots, and gallinules, shorebirds], during the fall season, beginning every September 1;

e) all raptors, including owls; and

f) eiderdown from eider duck nests.

5.7.16 Subject to Section 5.7.18, all Inuit shall have free and unrestricted right of access for the purpose of harvesting to all lands, water and marine areas within the Nunavut Settlement Area, except the lands described in Section 5.7.17 [fee simple lands and military lands], and without limiting the generality of the foregoing, the said right of access shall extend to all Crown lands, including, for greater certainty, Parks and Conservation Areas, and, to all lands vested in a municipal corporation.

Appendix 7. continued.

5.7.18 The right of access granted by Section 5.7.16 is subject to:

- a) laws of general application enacted for the purpose of public safety;
- b) any restrictions established by the NWMB for the purpose of conservation;
- c) in the case of Parks or Conservation Areas, any bilateral agreement between Inuit affected and the management agency of such Park or Conservation Area.

iii) Creation and management of conservation areas (including Migratory Bird Sanctuaries)

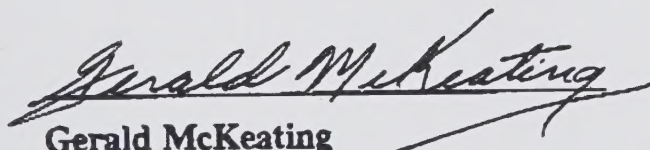
- 9.2.1 In addition to Parks, other areas that are of particular significance for ecological, cultural, archaeological, research and similar reasons, require special protection. Inuit shall enjoy special rights and benefits with respect to these areas.
- 9.3.2 The establishment, disestablishment or changing of the boundaries of Conservation Areas related to management and protection of wildlife and wildlife habitat shall be subject to the approval of the NWMB pursuant to subsection 5.2.34 a). Conservation Areas shall be co-managed by Government and the DIO [Designated Inuit Organization] as provided in Section 9.3.7.
- 9.3.7 Sections 8.4.11 and 8.4.12 shall apply in like manner to Conservation Areas except that where an IIBA is not concluded in the process of establishing a Conservation Area, the Committee referred to in those sections shall be established when requested by Government or a DIO. [Section 8.4.11 states that a joint Inuit/government conservation area planning and management committee shall be established. The Committee shall consist of equal numbers of members appointed by the appropriate DIO and the appropriate territorial or federal Minister.]
- 9.3.8 Subject to Section 9.5.2, Sections 8.4.13 and 8.4.14 shall apply in like manner to Conservation Areas. [Section 8.4.13 states that management plans for Conservation Areas shall be developed within five years of the establishment of a Conservation Area or of the date of ratification of the Agreement, whichever is the later date. Section 8.4.14 states that management plans shall accord with or be revised to accord with relevant terms and conditions of the relevant IIBA.]
- 9.4.1 Sections 8.4.2 to 8.2.10 shall apply in like manner to Conservation Areas and to government agencies having responsibilities with respect to Conservation Areas. Notwithstanding Sections 8.4.2 to 8.4.4, in cases of emergency, such as the establishment of a critical wildlife area, the IIBA may be concluded forthwith upon, rather than prior to, the establishment of the protected area. [Sections 8.4.2 to 8.4.10 discuss the development of Inuit Impact and Benefit Agreements (IIBA). Prior to the establishment of any Conservation Area, the government and the appropriate DIO shall negotiate an IIBA. The IIBA shall include any matter connected with the proposed conservation area that would have a detrimental impact on Inuit, or that could reasonably confer a benefit on Inuit.
- 9.4.2 Notwithstanding Sections 8.4.2 to 8.4.4, the obligation to conclude an IIBA shall:
- a) not apply to a Conservation Area so long as the Area does not raise any matter that would have a detrimental impact on Inuit or that could reasonably confer a benefit on Inuit;
 - b) with respect to Conservation Areas that have been established prior to and continue to exist at the date of ratification of the Agreement, be an obligation to conclude an IIBA prior to the fifth anniversary of the date of ratification of the Agreement; and
 - c) apply in any situation where it is intended that a Conservation Area established for one purpose be re-established for a different purpose where such re-establishment would have a detrimental impact on Inuit or could reasonably confer a benefit on Inuit.

Appendix 7. continued.

- 9.4.3** Sections 8.4.16 and 8.4.18 shall apply in the like manner to Conservation Areas and to government agencies having responsibilities with respect to Conservation Areas. [Section 8.4.16 states that Government shall make available Inuktitut translations of its publications that are aimed at informing the Canadian public about Conservation Areas in the Nunavut Settlement Area. Section 8.4.18 states that appropriate recognition shall be made of Inuit history and presence as part of the process of the establishment and operation of a Park.]
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¹ numbers in text refer to sections cited in the *Nunavut Final Agreement*.

**THIS PLAN HAS BEEN REVIEWED AND APPROVED BY THE
REGIONAL DIRECTOR, CANADIAN WILDLIFE SERVICE,
ENVIRONMENTAL CONSERVATION BRANCH, PRAIRIE AND
NORTHERN REGION.**

A handwritten signature in dark ink, reading "Gerald McKeating". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

**Gerald McKeating
Regional Director
Canadian Wildlife Service
Environmental Conservation Branch
Prairie and Northern Region**

